

Transportation IWG: Compact and Transit Oriented Development Subgroup (coupled with Bike/Ped – T-8)

1. Housing and Employment Density

Description: Compact and Transit Oriented Development (CTOD) is an area that incorporates more dense housing and employment in a way that will result in decreased vehicle miles traveled due to access to a mix of goods and services and where travel and access by transit, walking, or biking is available and attractive to users.

A typical CTOD district, corridor, or node will have:

- Street facilities for walking and biking (sidewalks, bike lanes or routes)
- Transit access and facilities with headways of 15 minutes or less (or plans for density that could eventually support transit)
- High employment *and* residential density development within an identified area or a 10 minute walk circle around the CTOD center which has – or is planned to have - a transit station or transit access, and at *minimum* 8-10 units/acre¹ area wide to support transit service. Higher density is preferred in order to create very active, full service CTOD's that encourage use of alternative modes and maximize decreased VMT.
 - This level of density is a goal and requires significant time and investment. Many areas will not achieve this for a period of time.
 - Another alternative measure for density is to use gross density. The Puget Sound Regional Council's (PSRC) publication, "Developing Your Center – A Step by Step Approach," identifies different gross density goals for different types of "centers" (synonymous with CTOD's). These included:
 - Regional Center – 20 units/acre, 80 jobs/acre (300,000 jobs)
 - Metropolitan Center – 15 units/acre, 50 jobs/acre (30,000 jobs)
 - Smaller Urban Center – 10 units/acre, 25 jobs/acre (15,000 jobs)
 - Town Center – 7 units/acre, 15 jobs/acre (2,000 jobs)
- Street connectivity and calming features to control vehicle speeds (average block perimeter no greater than 1,350 ft.)
- Mixed-use development that includes retail, commercial/office, and various housing types and possibly schools in a form that encourages walking from one place to another,
- Parking management that results in reduction of amount of land devoted to parking (no minimum parking standards and full market rates charged for all parking spaces)

¹ The 2007 CAT T-4 recommendation was 8-10 net units/acre – total CTOD acreage minus critical areas.

Key Question for TIWG: What should be done with the definition? What should the high-level goal be associated with T-4?

Recommendations:

1. Leverage and maximize the use of Multi-Family Tax Exemption (HB 1910) to attract multi-family development to existing, emerging or planned CTOD areas (these could be districts, corridors or nodes). This tool should be made available for any city planning under GMA to encourage the emergence of at least one CTOD (city center or activity center).

Action:

Legislative change to expand use to all cities planning under GMA.

2. Focus grant funding criteria to favor applications and expenditures that support CTODs . These could include:
 - A. Infrastructure
 - Transit grants that support facilities in CTOD district, corridors or nodes.
 - Federal and State transportation grants – with grant criteria that encourage applications that focus funding in CTOD (area, corridor, or node).
 - B. Development Supportive Financing (including grants)
 - Federal and State Housing Grants and Tax Credits that add density to CTOD areas. This will include the Washington State Housing Finance Commission grant and loan programs (wherever possible new housing units for lower income households should be built where car ownership is a choice- not a necessity).
 - Loans (low interest and revolving funds that help achieve density goals)
 - New financing mechanisms² (i.e. fees for development outside of CTOD's that support development inside CTOD's – or that support the multimodal transportation improvements identified as part of the CTOD network.)
3. Leverage Public/Private partnerships and relationships. Clarify and publicize possibilities for using public land for private development that contribute density or necessary uses or facilities to the CTOD. Use private development projects for some public use (park and ride as part of a development).

² Funds to create a CTOD support network are going to be needed and the subgroup has not identified any “new” funds – just prioritizing funds that are already stressed.

Action: CTED takes the lead to clarify opportunities. CTED and AWC work to publicize opportunities.

4. Perform Education and Outreach to Decision Makers to Overcome Barriers to CTOD Development

- Land aggregation – Identify tools and methods to use and publicize to city administrators, planners, and legal staff.
- Identify concurrency options to use in CTOD's
- Train and make available charrette "SWAT" teams trained to help organize, support or lead community discussions about achieving city/regional CTOD goals. Investigate and use emerging models such as those using the National Charrette Institute model and the Housing + Transportation Affordability Index to help with scenario building to test and show trade-offs. Goal is to build support for focusing growth as much as possible in CTOD's.

Action: CTED takes the lead to clarify land aggregation tools and concurrency options for use in CTOD's and to offer resources that support community discussions about the role of CTOD's in sustainable communities. AWC publicizes information and offers workshops to inform cities.

2. Concurrency Requirements

Work on Concurrency is currently being coordinated by AWC and WSDOT with the Land Use and Climate Change (GMA group).

3. Parking Incentives/Management

Goals to reduce VMT and decrease trips by commuters within - and to - CTOD's will not be met without parking management. Parking in CTOD's should be managed to support commercial needs while encouraging employees to use alternatives to driving alone. Support services and incentives to use alternatives must be in place and parking charges should reflect the true cost of parking. Parking management should reflect the different sizes and types of CTOD's and will evolve as CTOD's evolve and become higher density live, work, shop and play areas.

A. Legislative Opportunities and Authorities

- Address minimum/maximum parking thresholds at the state/regional level. "Minimum parking requirements raise the cost of development and provide large subsidies to cars. They are a hidden tax on development to subsidize parking....Properly pricing curb parking and eliminating minimum parking requirements will improve transportation, land use and urban life." – Donald Shoup – The High Cost of Free Parking.
- Direction and education at the state level that recognizes the importance of parking management in CTOD's
- Explore revenue and funding options i.e., parking tax for dense urban locations with funds made available for projects and programs in the CTOD and tax credits for lower parking ratios
- Require that regions discuss and recommend parking maximums for different uses at the Regional Level as part of regional transportation plans. This would raise consciousness

about the importance of parking management and work to eliminate jurisdiction fear of losing tax base by having more rigorous parking standards.

Action:

1. Direct CTED and AWC to collaborate on parking management education programs.
2. Make regional parking maximums a requirement of regional transportation plans.
3. Maintain state grant support for focused trip reduction programs in CTOD's. These would be modeled after the Growth and Transportation Efficiency Center demonstration projects currently underway in some activity centers. Review results and support WSDOT grant request to legislature to continue GTEC efforts.

B. Additional Ideas – Funding Considerations

- Congestion pricing for special events parking and variable parking pricing for different areas and times of day (these are already being implemented in a variety of areas. Technology³ is being used to make variable parking pricing and monitoring of parking use more available.)
- Charge for park-and-ride lot use to fund additional transit service or other park and ride amenity.
- Parking management has traditionally been treated as a local issue and the T-4 subgroup felt the most promising options were thinking about parking management through market incentives. How can you use market forces to decrease demand for parking?
- Recommendation – Publicize the cost of 'free parking' (i.e., ability to have better/more revenue generating units in the same building envelope. See work by Donald Shoup – UCLA – "The High Cost of Free Parking".
- Charge the local going rate for parking (which reflects local land costs and supply and demand). Use the funds to support TMA activities or those of some other commute trip reduction effort, for complete street infrastructure improvements and pay commuters for using alternatives.
- Identify opportunities for funding incentives to developers who develop housing facilities that reduce or intercept traffic impacts on already overburdened major roadways (e.g. Alaskan Way Viaduct). As noted – given the cost of structured parking (above grade \$15,000 to \$20,000/space; below grade \$25,000 to \$35,000 per space (40,000 to 50,000 depending on soils/water table).)
- Encourage increased density and reduced parking requirements for valet parking (allows narrower stalls, aisles, and "stacking" for short term parking).
- Reduced parking rates for ridesharing/HOVs.
- Employees cash out their free parking.
- Employers provide mini fleet for employees.
- Zero or "scooter space" parking requirement for efficiency or studio units.
- Provide residents with free transit pass, and car sharing programs in lieu of parking space.
- Free street parking for scooters, motorcycles, car sharing vehicles.
- Restrict 'early bird specials' in congested downtown areas.
- Remove long term parked vehicles on streets thru better enforcement of 48 hour rule.

³ <http://wheels.blogs.nytimes.com/2008/07/01/fix-parking-cure-congestion/>

- Reconfigure street parking for cycles/scooters/ and angled vs. parallel parking (back in angled parking is preferable where streets are wide enough. Opportunities for angled parking should be examined as part of the CTOD multimodal transportation plan.)
- C. Local Opportunities/Authorities
- Case Studies on successful implementations of 'climate friendly' parking management
 - Opportunity to explore regional incentives - recommend piloting a regional parking discussion
 - Provide training to help CTOD's form Transportation Management Associations to work toward self sustaining parking management and commute trip reduction organizations (See work done by Rick Williams Parking & Transportation Demand Management Consulting – responsible for the TMA, and parking management that resulted in allowing infill and redevelopment of the Lloyd Center in Portland.)
 - Describe the role of car-sharing, e.g., zip car, in parking management. Viable in dense areas. Also think about car-share as part of the tie in with transit (e.g., Sea – Oly - bus to Lakewood then zip car to Oly).

4. Bicycle and Pedestrian Accessibility

Bicycling & walking as a central part of achieving reduced VMT and complete CTODs.

Half of all trips in Washington are of less than three miles: 80% of such trips are made by automobile.⁴

Trips of up to 3 miles are easily within the capability of any physically able adult to bicycle: walking is feasible for trips up to 1 mile. Bicycling and walking can capture a greater portion of those trips three miles and under if conditions for making such trips are more appealing. The Victoria Transport Institute⁵ estimates VMT savings of 5-15% as a result of improvements for cycling and walking.

For walkers, that means continuous sidewalks from residential areas and road crossings that allow easy access to destination points such as grocery stores, libraries, health-care centers, movie theatres etc. For bicyclists, that means low-volume auto traffic on quiet streets or bike lanes/paths on busier roads. For both walkers and cyclists, a streetscape built on a human scale (limited road widths, short blocks, visually appealing) is infinitely more welcoming and encourages trips without an automobile.

The T-4 sub-group believes that a more inclusive approach to how roads and streets are viewed by planners and engineers has great potential to increase the walking and biking share of short trips, thereby reducing VMT. An inclusive approach, which for convenience here will be called a Universal Access or *Complete Streets*⁶ (see below) approach, complements the goals of promoting urban development that is compact and relatively dense. Such developments are most efficiently and effectively served by transit service. *Complete Streets* has been endorsed by,

⁴ Washington State Bicycling and Walking Plan, 2008

⁵ http://www.vtpi.org/leed_rec.pdf

⁶ *Complete Streets* is a national movement that advocates an inclusive approach to designing, building and maintaining roads and streets. The central tenet of Complete Streets is to routinely accommodate all potential users, be they transit rider, bicyclist, walker, wheelchair user, truck or automobile. *Complete Streets* takes context-sensitive design (a criteria for applying standards based on anticipated usage on a particular project) and applies it universally. *Complete Streets* could also be called Routine Accommodation or Universal Access – the terminology is less important than the concepts, though *Complete Streets* is recognized as part of a national movement. Definitions available at: <http://www.completestreets.org/policies.html>

among others, The American Public Transportation Association; American Planning Association and the Institute of Transportation Engineers. Four communities in Washington have enacted ordinances or directives on *Complete Streets*.

Implementation – target dates

To provide sufficient lead time for planning and budgeting in communities throughout Washington, targets for base improvements should be set as follows:

By 2010: State competitive funds (such as Transportation Improvement Board) shall be awarded based on the adoption of local policies modeled on Complete Streets.

By 2010: All engineers and planners employed by the Washington DoT shall have completed training on design and engineering elements that promote walking and cycling.

By 2012: All cities shall adopt policies (through rule or by ordinance) modeled on Complete Streets. Cities opting to not develop policies shall have to justify their decision in terms of alternative plans for reducing VMT.

By 2012: The Legislature shall amend the Trip Reduction Act to include all colleges and high schools whose student attendance requirement is 180 days or more. All school districts in the state shall develop transportation plans which identify strategies to discourage parents from driving children to school.

By 2013: The Legislature shall identify funds to fulfill all elements in the adopted Washington State Bicycle and Walking Plan published in 2008.

By 2014: All elementary and middle schools in Washington shall be connected to sidewalks within 1.5 miles of the school entrance.

By 2014: All urban areas designated under the Growth Management Act shall have produced a bicycle and walking master plan (or two separate plans) and identify funding to complete the execution of the plan(s) within three budget cycles (6 years).

By 2016: All high schools in Washington shall be connected to sidewalks within 2 miles of the school entrance.

Implementation – cost issues

The concepts inherent in the Universal Access philosophy are sufficiently new that no detailed research on the costs of implementation are available. Anecdotally, costs will vary based on overall local plans and goals already set under the Growth Management Act. In some instances, accommodating bicycles better might mean simply striping a road under an existing maintenance regime but putting the white paint on a different portion of the street. Or it might mean installing sidewalks where none exists. Costs will likely rise in the short-term but there may cost savings in the long-term as the provision of improved facilities for cycling and walking leads to less car usage. (Automobiles and other motor vehicles damage roadways.)

6. Urban Brownfield Redevelopment

Currently, EPA provides assessment grants on a nationally competitive basis, and the State's Brownfields revolving loan program is \$5.9 million federally funded. (source: <http://cted.wa.gov/site/790/default.aspx>)

Problem Statement:

Assessment grants are too few, and loans do not work for everyone, especially municipal governments.

Proposal:

Including state funding and adding a grants component that augments EPA funding will clean up the environment, generate new development, promote compact development, and generate state and local revenues.

Measurement information included in the 2007 CAT report:

			Reductions (MMtCO ₂ e)			NPV (2008–2020) (\$ millions)	Cost-Effective-ness \$/tCO ₂
			2012	2020	Cumulative Reductions (2008–2020)		
	Policy	Scenario					
T-4	Promote Compact and Transit-Oriented Development	7% VMT reduction	0.32	1.62	8.9	Not quantified (see text)	Not quantified
		15% VMT reduction	0.76	3.78	20.8		

Data Sources

- The 7% VMT reduction scenario based on PRSC Vision 2040 modeling of “Metropolitan Cities Alternative” and from land use scenario modeling in other metropolitan areas. PSRC’s modeling shows that land use changes alone can significantly reduce VMT even when the transportation network is not optimized for that particular land use.
- The 15% reduction based on estimates of the maximum potential VMT reduction that can be achieved through compact and transit-oriented development, major expansion of transit service (option T-1), roadway and parking pricing (option T-3), and improvement to pedestrian and bicycle infrastructure (option T-8).

Quantification Methods VMT

- Mitigation option assumed to affect urban area VMT only.
- Statewide urban area VMT calculated as 70.8% of total statewide VMT, from FHWA’s 2005 *Highway Statistics* for Washington. This ratio is assumed to remain constant (a conservative assumption, since the percent of urban VMT is likely to increase over time).
- Reduction in VMT will reduce GHG emissions, with a small offset due to reduction in average vehicle speeds in compact development. GHG emissions per mile assumed to increase 1% in compact development (based on Ewing et al, Growing Cooler: The Evidence on Urban Development and Climate Change, Urban Land Institute, 2007). Thus, a 7% VMT reduction reduces GHGs by 6.1% (100%-(93%*101%)), and a 15% VMT reduction reduces GHGs by 14.2% (100%-(85%*101%)).

Calculation of GHG impacts shown in table below.

	2000	2005	2010	2012	2020
Annual VMT (million)					
Statewide	53,319	56,174	60,951	64,059	75,067
Statewide Urban	37,747	39,768	43,150	45,350	53,143
Baseline Annual On-Road GHGs (MMtCO ₂ e) ^a					
Statewide	32.10	32.26	35.01	35.77	37.70
Statewide Urban	22.72	22.84	24.78	25.32	26.69
Impact of VMT Reduction (MMtCO ₂ e)					
Low-end (7% VMT reduction)					25.07
High-end (15% VMT reduction)					22.91

Note a: Baseline emissions reflect effect of Clean Car program.

- Emissions benefits assumed to begin 2011 and increase linearly to 2020.
- Cost of this option cannot be accurately quantified. As discussed under option T-1, the costs and benefits of this option overlap considerably with option T-1.

A variety of literature finds that compact land development patterns produce net savings on the total costs of buildings + land + infrastructure + transportation. While some development components may have higher costs, the preponderance of literature suggests net savings overall (see US EPA, *Our Built and Natural Environments: A Technical Review of the Interactions between Land Use, Transportation, and Environmental Quality*, 2001). A National Academy of Sciences / Transportation Research Board review found substantial regional and state-level infrastructure cost savings from more compact development (see Robert Burchell, et al., *The Costs of Sprawl—Revisited* (TCRP Report 39), Transportation Research Board, Washington, D.C. 1998). An analysis of the New Jersey State Plan found that municipalities, counties, and school districts would save an estimated \$160 million from 2000 to 2020 by pursuing smart growth patterns (see Robert Burchell, et al., *The Costs and Benefits of Alternative Growth Patterns: The Impact Assessment of the New Jersey State Plan*, Center for Urban Policy Research, Rutgers University, 2000). The Envision Utah study found that a compact growth plan for the Salt Lake City region would save the region about \$4.5 billion (17%) in infrastructure spending compared with a continuation of current sprawl development patterns (see Envision Utah, *Quality Growth Strategy and Technical Review*, Salt Lake City, Utah, January 2000).

Key Assumptions

- 7% to 15% reduction in urban area VMT by 2020 (compared to baseline)
- VMT reduction (compared to baseline) begins in 2010 and increases linearly to 2020.